

I CLAIM:

1. A power switch device for a telephony instrument that is connected to a local phone loop via a pair of telephone wires and that has a pair of power lines for connection
5 to a power source, said power switch device comprising:

a rectifier adapted to be connected to the telephone wires and to process a phone loop signal present at the telephone wires for generating a direct current output;

a latching relay including an exciting coil and a
10 first switch unit adapted to interconnect one of the power lines to the power source;

a differentiator interconnecting said rectifier and said exciting coil of said latching relay, said exciting coil of said latching relay being excited by electric
15 current flowing through said differentiator so as to enable said first switch unit to make connection between said one of the power lines and the power source in order to enable operation of the telephony instrument when the phone loop signal present at the telephone wires
20 is a ring signal;

an integrator connected between said rectifier and said exciting coil of said latching relay; and

a discharge control circuit connected to said differentiator and said integrator, said discharge
25 control circuit inhibiting said integrator from discharging electric current when the phone loop signal present at the telephone wires is the ring signal, and

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allowing said integrator to discharge when the phone loop signal present at the telephone wires is neither the ring signal nor a talking signal, said exciting coil of said latching relay being excited by the electric current discharged by said integrator so as to enable said first switch unit to break connection between said one of the power lines and the power source, thereby disabling operation of the telephony instrument.

2. The power switch device as claimed in Claim 1, wherein said rectifier is a bridge rectifier.

3. The power switch device as claimed in Claim 1, wherein said differentiator includes a series connection of a diode and a capacitor, said capacitor being charged by the direct current output from said rectifier when the phone loop signal present at the telephone wires is the ring signal.

4. The power switch device as claimed in Claim 1, wherein said integrator includes a series connection of a resistor and a capacitor, said discharge control circuit permitting charging of said capacitor when the phone loop signal present at the telephone wires is the talking signal.

5. The power switch device as claimed in Claim 1, wherein said latching relay further includes a second switch unit that makes connection between said rectifier and said integrator when said exciting coil of said latching relay is excited by the electric current flowing through

said differentiator, and that breaks connection between said rectifier and said integrator when said exciting coil of said latching relay is excited by the electric current discharged by said integrator.